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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,607	03/15/2004	Takuya Tsukagoshi	890050.469	1809

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EXAMINER	
BOUTSIKARIS, LEONIDAS	

ART UNIT	PAPER NUMBER
2872	

DATE MAILED: 03/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/800,607	TSUKAGOSHI, TAKUYA	
	Examiner	Art Unit	
	Leo Boutsikaris	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horimai (US 2003/0063342) in view of Amble (US 2004/0001400).

Regarding claim 1, Horimai discloses a system and a method for recording and reproducing optical information in and from a holographic storage medium, wherein the holographic recording medium comprises a recording layer 3 (Fig. 4) in which data is recorded as phase information by producing the interference of an object light beam 51L and a reference beam 52L (Fig. 7) in the recording layer 3 ([0146]), and an optical modulation pattern 6 periodically formed in a direction of a track on a surface located on the opposite side of the recording layer 3 as viewed in the direction of the signal beam and reference beam incidence of the recording layer, wherein a separate light beam is emitted from the light source 25 to serve as a beam for servo control, such that said servo beam is focused onto the pattern 6 in order to produce clock servo signals ([0135]-[0137]).

However, Horimai does not teach that a first light source is used to emit the recording beams and a second light source is used to emit the servo beam. Amble discloses an optical data

storage system wherein one wavelength e.g., 658 nm is used to read/write data and a separate wavelength e.g., 780 nm is used to illuminate the medium with a servo control beam (Figs. 3D, 3E, [0066]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use separate wavelengths for the read/write and servo control beams in Horimai's optical storage system, as taught by Amble, since various types of optical storage media, e.g., CDs, DVDs, require read/write beams of different optical wavelengths (see also [0052]-[0053] in Amble).

Regarding claim 2, the servo beam is focused onto the pattern area 6 by lens 12. Furthermore, it is inherent that the beam's spot diameter is smaller than a period of the pattern (i.e., smaller than the pattern itself) since the servo beam is used for identifying the address of the specific location (see second to last line in [0133]), hence the beam cannot overlap several data locations.

Regarding claim 3, each pattern 6 is disposed adjacent to a data recording location, which implies that when successive data bits are sequentially recorded in adjacent locations of the recording layer, the track has shifted by an integer multiple of the period of the pattern.

Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horimai (US 2003/0063342) in view of Amble (US 2004/0001400) and further in view of Kono (JP 2001-291242).

Horimai in view of Amble discloses all the limitations of said claims except for teaching the removal of noise incurred due to the passage of light trough the optical modulation pattern, wherein a predetermined test pattern is recorded, it is then reproduced and its noise "signature" is

subsequently removed from noisy image reproductions. Kono discloses a method for reducing the influence of noise caused by an optical recording medium, wherein a test light 1 for noise cancellation is used to record a pattern, and the difference between the reproduced pattern and other reproduced light is used to reduce the noise present in the reproduced images (see Abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the method taught by Kono to reduce the noise present in the reproduced data in Horimai's system, for achieving better signal-to-noise ratio during reading of the optical information stored in the holographic medium.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2 of copending Application No. 10/827,152 in view of Amble (US 2004/0001400). Although the conflicting claims are not identical, they are not patentably distinct from each other because said claims of the '152 application are drawn to a holographic optical storage system wherein a periodic pattern is

formed adjacent to the holographic recording layer for use in conjunction with a servo control beam, and it would have been obvious to use a separate wavelength for the read/write and servo control beams, as taught by Amble, since many applications require data storage systems with read/write beams of different wavelengths.

This is a provisional obviousness-type double patenting rejection.

Response to Arguments

Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Leo Boutsikaris whose telephone number is 571-272-2308.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leo Boutsikaris, Ph.D., J.D.
Primary Patent Examiner, AU 2872
March 2, 2006

LEONIDAS BOUTSIKARIS
PRIMARY EXAMINER